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SENP3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1234a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9H4L4
Other Accession	Q9EP97
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB0654
Calculated MW	65010
Antigen Region	1-30

Additional Information

Gene ID	26168
Other Names	Sentrin-specific protease 3, SUMO-1-specific protease 3, Sentrin/SUMO-specific protease SENP3, SENP3, SSP3, SUSP3
Target/Specificity	This SENP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human SENP3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SENP3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SENP3
Function	Protease that releases SUMO2 and SUMO3 monomers from sumoylated substrates, but has only weak activity against SUMO1 conjugates

(PubMed:16608850, PubMed:32832608, PubMed:36050397). Deconjugates SUMO2 from MEF2D, which increases its transcriptional activation capability (PubMed:15743823). Deconjugates SUMO2 and SUMO3 from CDCA8 (PubMed:18946085). Redox sensor that, when redistributed into nucleoplasm, can act as an effector to enhance HIF1A transcriptional activity by desumoylating EP300 (PubMed:19680224). Required for rRNA processing through deconjugation of SUMO2 and SUMO3 from nucleophosmin, NPM1 (PubMed:19015314). Plays a role in the regulation of sumoylation status of ZNF148 (PubMed:18259216). Functions as a component of the Five Friends of Methylated CHTOP (5FMC) complex; the 5FMC complex is recruited to ZNF148 by methylated CHTOP, leading to desumoylation of ZNF148 and subsequent transactivation of ZNF148 target genes (PubMed:22872859). Deconjugates SUMO2 from KAT5 (PubMed:32832608). Catalyzes desumoylation of MRE11 (PubMed:36050397).

Cellular Location

Nucleus, nucleolus. Nucleus, nucleoplasm. Cytoplasm {ECO:0000250|UniProtKB:Q9EP97} Note=Redistributes between the nucleolus and the nucleoplasm in response to mild oxidative stress (PubMed:19680224). Mainly found in the nucleoplasm, with low levels detected in the cytoplasmic and chromatin fractions (By similarity). {ECO:0000250|UniProtKB:Q9EP97, ECO:0000269|PubMed:19680224}

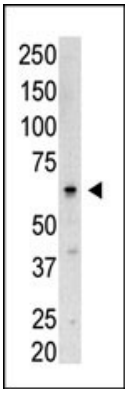
Background

SENP3 releases SUMO2 and SUMO3 monomers from sumoylated substrates, but has only weak activity against SUMO1 conjugates. This protein deconjugates SUMO2 from MEF2D, which increases its transcriptional activation capability.

References

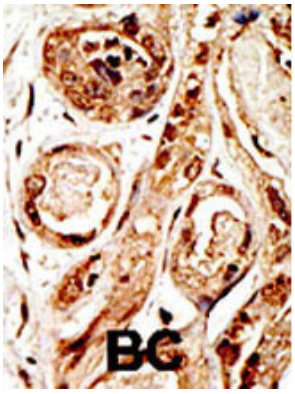
Muller S, et al., Nat Rev Mol Cell Biol. 2001 2(3):202-10 Review.
Hochstrasser M. Cell. 2001 107(1):5-8. Review.
Kahyo T, et al., Mol Cell. 2001 Sep;8(3):713-8.
Yeh ET, et al., Gene. 2000 May 2;248(1-2):1-14. Review.
Keane,M.M., et al., Oncogene 18 (22), 3365-3375 (1999)

Images

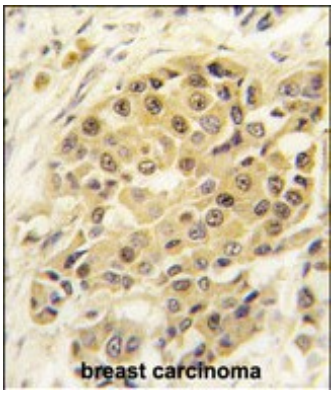


Western blot analysis of SENP3 N-term polyclonal antibody (Cat. #AP1234a) in Saos-2 cell lysate. SENP3 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical



relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with SENP3 antibody (N-term) (Cat.#AP1234a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.